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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

FORMAN, B

ART UNIT	PAPER NUMBER
1655	18

DATE MAILED: 07/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)
	09/242,561	SATO, YOSHIHIRO
	Examiner	Art Unit
	BJ Forman	1655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 21 May 2001.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 21,22,25,29,32-34 and 36-39 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 21,22,25,29,32-34 and 36-39 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- 1) Certified copies of the priority documents have been received.
- 2) Certified copies of the priority documents have been received in Application No. _____.
- 3) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) Interview Summary (PTO-413) Paper No(s). 16.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____

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DETAILED ACTION

1. This action is in response to papers filed 21 May 2001 in Paper No. 16 in which claims 21, 29, 32-34 and 36-39 were amended, claim 26 was canceled and new claim 40 was added. All of the amendments have been thoroughly reviewed and entered. The previous rejections in the Office Action of Paper No. 13 dated 2 February 2001 under 35 U.S.C. 112, first paragraph are maintained. The previous rejections under 35 U.S.C. 102(b) and 35 U.S.C. 103(a) are withdrawn in view of the amendments and new grounds for rejection. All of the arguments have been thoroughly reviewed and are discussed below. New grounds for rejection are discussed.

Currently claims 21, 22, 25, 29, 32-34, 36-39 are under prosecution.

Claim Rejections - 35 USC § 112

First paragraph of 35 U.S.C. 112: Written Description

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 34-40 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims are drawn to a process for conducting a reaction in a minute droplet protected from evaporation however, the specification does not provide an adequate written description of the claimed invention. The methodology for determining adequacy of Written Description to convey that applicant was in possession of the claimed invention includes

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determining whether the application describes an actual reduction to practice, determining whether the invention is complete as evidenced by drawings or determining whether the invention has been set forth in terms of distinguishing identifying characteristics as evidenced by other descriptions of the invention that are sufficiently detailed to show that applicant was in possession of the claimed invention (*Guidelines for Examination of Patent Applications under 35 U.S.C. § 112, p 1 "Written Description" Requirement*; Federal Register/ Vol. 66. No. 4, Friday, January 5, 2001; II Methodology for Determining Adequacy of Written Description (3.)).

Reduction to practice

The claims are drawn to a process for conducting a reaction in a minute droplet protected from evaporation. The claimed reaction encompasses a very large genus of reactions, each comprising a myriad of reagents, reagent preparations, reactions, reaction parameters and environmental and chemical conditions wherein each reaction requires specific and exact reagents, reagent preparations, reagent conditions, environmental conditions and chemical conditions to obtain the desired results. However, the specification does not describe an actual reduction to practice of the invention as claimed. The specification teaches a process for conducting one reaction i.e. PCR (page 3, last paragraph and pages 23-56) and the specification teaches that the invention is "effective for a biochemical reactions other than PCR which involves a high temperature reaction" (page 8, bottom paragraph). While the specification teaches the actual reduction to practice of a PCR reaction, the specification does not teach reduction to practice any other reaction of the very large genus of reactions claimed. Therefore, the specification does not teach an actual reduction to practice of the invention as claimed.

Completed by drawings

The claims are drawn to a process for conducting a reaction in a minute droplet protected from evaporation. The specification teaches a process for conducting PCR as evidenced by drawing. However, the specification does not teach that the invention as claimed

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is complete as evidenced by drawings because the specification does not teach any other of the very large genus of reactions claimed as evidenced by drawings. The drawings of the specification illustrate the process of reducing evaporation (Fig. 1-42) but the drawings do not provide evidence that the invention is complete because the drawings do not provide or complete the description of the process for conducting a reaction in a minute droplet protected from evaporation. Therefore, the drawing do not provide a teaching of the process as claimed.

Description of identifying characteristics

The claims are drawn to a process for conducting a reaction in a minute droplet protected from evaporation. The claimed reaction encompasses a very large genus of reactions, each comprising a myriad of reagents, reagent preparations, reactions reaction parameters and environmental and chemical conditions wherein each reaction requires specific and exact reagents, reagent preparations, reagent conditions, environmental conditions and chemical conditions to obtain the desired results. The specification teaches a process for conducting a reaction i.e. PCR (page 3, last paragraph and pages 23-56) and the specification teaches that the invention is "effective for a biochemical reaction other than PCR which involves a high temperature reaction" (page 8, bottom paragraph). The specification does not teach identifying characteristics of the claimed reactions e.g. reagents, conditions, and preparations. Therefore, the specification has not been set forth in terms of distinguishing identifying characteristics as evidenced by other descriptions of the invention.

The courts have stated that the specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonable conclude the inventor had possession of the claimed invention see *In re Vas-Cath, Inc.* 935F2d. 1555, 1563, 19 USPQ2d 1111,1116.

The specification does not provide a written description of the claimed invention in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time

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the application was filed, had possession of the claimed invention. Therefore, the specification does not provide an adequate written description of the claimed invention.

Response to Arguments

4. Applicant argues that the desired result of the claimed invention is "reduction of evaporation" and because the prior art teaches that it was known in the art to conduct a reaction in a minute aqueous droplet, one skilled in the art would have been able to properly select reagents, reagent preparations, reagent conditions, environmental conditions and chemical conditions to obtain the desired result. This argument is not found persuasive because as stated above, the claimed inventions are drawn to process of conducting a reaction and the claimed reactions encompasses a very large genus of reactions, each comprising a myriad of reagents, reagent preparations, reactions, reaction parameters and environmental and chemical conditions wherein each reaction requires specific and exact reagents, reagent preparations, reagent conditions, environmental conditions and chemical conditions to obtain the desired results but the specification does not teach any reaction other than PCR which requires very specific reagents, reagent preparations, reaction parameters and environmental conditions and the specification does not even suggest any reaction other than biochemical reactions which involve a high temperature reaction" (page 8, bottom paragraph). Therefore, because the claimed invention encompasses an enormous genus of reactions, the specification does not provide a written description of the invention as claimed.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 21, 22, 25, 26, 29, 34, 36 & 40 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Monk et al. (Mammalian development: a practical approach, 1987) in view of the teaching of Drohan et al. al. (U.S. Patent No. 5,589,604, issued 31 December 1996)

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Regarding Claim 21, Monk et al. disclose a process comprising the steps of: providing a planar substrate (cover slip); providing an oily liquid layer (liquid paraffin); and providing an aqueous solution immiscible with said oily layer (cultured pronuclear eggs within the M16 and BSA solution, page 225, (i) and page 264, (i)) and "shooting" a minute droplet of aqueous solution into said oily liquid layer to contact said planar substrate, wherein said oily liquid layer surrounds all surfaces of said minute aqueous droplet that are not in contact with said substrate whereby evaporation is reduced i.e. (ii) drops of Sendai virus solution and PNC medium are placed on the cover slip, (iii) the chamber is filled with liquid paraffin, and (iv) the eggs are introduced into the liquid paraffin to contact the substrate (page 244, Nuclear Transfer). The term "shooting", given it's broadest reasonable interpretation encompasses the "introduction" of the egg into the oily layer to contact the substrate of Monk et al. because the introduction would require force to propel the egg through the oil to contact the substrate and "shooting" is reasonably interpreted as a propelling force. Monk et al. do not specifically teach that the process reduces evaporation of the minute droplet. However, Drohan et al. teach the process of Monk et al. reduces evaporation of the minute droplet (Column 9, lines 34-36). Therefore, the process disclosed by Monk et al. reduces evaporation of the minute droplet.

Regarding Claim 22, Monk et al. disclose the process wherein said planar substrate is water repellent i.e. the substrate is a cover slip which is glass and therefore water repellent (page 244, 3.1 (i)).

Regarding Claim 25, Monk et al. disclose the process wherein said oily liquid layer is paraffin oil (page 244 (iii)).

Regarding Claim 29, Monk et al. disclose the process further comprising providing a covering over said oily liquid layer i.e. the bottom of the chamber comprises the covering over the liquid paraffin layer (page 245, Fig 4b).

Regarding Claim 34, Monk et al. disclose a process for conducting a reaction in a minute droplet of an aqueous solution protected from evaporation comprising the steps of:

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providing a planar substrate (cover slip); providing an oily liquid layer (liquid paraffin); and providing a minute aqueous droplet (cultured pronuclear eggs within the M16 and BSA solution, page 225, (i) and page 264, (i)); shooting a minute droplet of said aqueous solution into said oily liquid layer to contact said planar substrate; providing a covering (bottom of the chamber) in contact with said oily liquid layer, wherein said oily liquid layer surrounds all surfaces of said minute droplet of said aqueous solution that are not in contact with said contact surface of said planar substrate; providing to said protected minute droplet a reactant (donor DNA); and conducting a reaction in said minute droplet with said reactant whereby evaporation is reduced i.e. (ii) drops of Sendai virus solution and PNC medium are place on the cover slip, (iii) the chamber is filled with liquid paraffin, and (iv) the eggs are introduced into the liquid paraffin (Nuclear Transfer: 3.1 page 244), a donor pronucleus is injected and a fusion reaction is conducted (3.3 pages 246-248 and Fig 5a-h). The term "shooting", given it's broadest reasonable interpretation encompasses the "introduction" of the egg into the oily layer to contact the substrate of Monk et al. because the introduction would require force to propel the egg through the oil to contact the substrate and "shooting" is reasonably interpreted as a propelling force. Monk et al. do not specifically teach that the process reduces evaporation of the minute droplet. However, Drohan et al. teach the process of Monk et al. reduces evaporation of the minute droplet (Column 9, lines 34-36). Therefore, the process disclosed by Monk et al. reduces evaporation of the minute droplet.

Regarding Claim 36, Monk et al. disclose the process wherein said minute droplet of aqueous solution comprises DNA i.e. donor pronucleus (page 247, Fig. 5).

Regarding Claim 40, The claim is drawn to a process for conducting a reaction in a minute droplet of an aqueous solution protected from evaporation at a high temperate. However, the claims do not recite method steps at a high temperature. Therefore, "high temperature" is given the broadest reasonable interpretation s it applies to the claimed method steps. Monk et al. disclose a process for conducting a reaction in a minute droplet of an

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aqueous solution protected from evaporation at high temperature (i.e. incubation at 37° C, page 225, (ii)) comprising the steps of: providing a planar substrate (cover slip); providing an oily liquid layer (liquid paraffin); and providing a minute aqueous droplet immiscible with said oily liquid layer to contact said substrate (cultured pronuclear eggs within the M16 and BSA solution, page 225, (i) and page 264, (i)); providing a covering in contact with said oily layer (bottom of the chamber), wherein said oily liquid layer surrounds all surfaces of said minute droplet of said aqueous solution that are not in contact with said contact surface of said planar substrate; providing to said protected minute droplet a reactant (i.e. donor DNA); and conducting a reaction in said minute droplet with said reactant whereby evaporation is reduced i.e. (ii) drops of Sendai virus solution and PNC medium are place on the cover slip, (iii) the chamber is filled with liquid paraffin, and (iv) the eggs are introduced into the liquid paraffin (Nuclear Transfer: 3.1 page 244), a donor pronucleus is injected and a fusion reaction is conducted (3.3 pages 246-248 and Fig 5a-h). Monk et al. do not specifically teach that the process reduces evaporation of the minute droplet. However, Drohan et al. teach the process of Monk et al. reduces evaporation of the minute droplet (Column 9, lines 34-36). Therefore, the process disclosed by Monk et al. reduces evaporation of the minute droplet.

Response to Arguments

7. Applicants argue that Monk et al. do not teach or suggest the limitations of the claims as amended i.e. they do not teach "shooting" the eggs into liquid paraffin. This argument is not found persuasive because, as stated above, "shooting", given it's broadest reasonable interpretation encompasses the "introduction" of the egg into the oily layer to contact the substrate of Monk et al. because the introduction would require a propelling force to "introduce" the egg through the oil to contact the substrate and "shooting" is reasonably interpreted as a propelling force.

Applicants further argue that Monk et al. teach a process of conducting nuclear transfer and not a process of conducting a chemical reaction. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., chemical reaction) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26

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USPQ2d 1057 (Fed. Cir. 1993). The claims are drawn to process for reducing evaporation and process for conducting a reaction. Monk et al., according to the teaching of Drohan et al teach a process for reducing evaporation and Monk et al. teach a process of conducting a reaction i.e. nuclear transfer. Therefore, Monk et al. teach the invention as claimed.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 21-33, 38 & 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monk et al. (Mammalian development: a practical approach, 1987), Brown et al. (U.S. Patent No. 5,807,522 filed 7 June 1995) and Sambrook et al. (Molecular Cloning: A laboratory Manual, 2nd, 1992).

Regarding Claims 21-32, Monk et al. teach a process comprising the steps of: providing a planar substrate (cover slip); providing an oily liquid layer (liquid paraffin); and providing an aqueous solution immiscible with said oily layer (cultured pronuclear eggs within the M16 and BSA solution, page 225, (i) and page 264, (ii)) and "shooting" a minute droplet of aqueous solution into said oily liquid layer to contact said planar substrate, wherein said oily liquid layer surrounds all surfaces of said minute aqueous droplet that are not in contact with said substrate whereby evaporation is reduced i.e. (ii) drops of Sendai virus solution and PNC medium are placed on the cover slip, (iii) the chamber is filled with liquid paraffin, and (iv) the eggs are introduced into the liquid paraffin to contact the substrate (page 244, Nuclear Transfer) and further comprising providing a second aqueous solution into said oily liquid layer adjacent to said minute droplet of said aqueous solution wherein said second aqueous solution

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does not contact minute droplet of said aqueous solution (i.e. an empty drop of Sendai virus, page 244, (iv), lines 4-7). The term "shooting", given it's broadest reasonable interpretation encompasses the "introduction" of the egg into the oily layer to contact the substrate of Monk et al. because the introduction would require force to propel the egg through the oil to contact the substrate and "shooting" is reasonably interpreted as a propelling force. Monk et al. do not specifically teach that the process reduces evaporation of the minute droplet. However, Drohan et al. teach the process of Monk et al. reduces evaporation of the minute droplet (Column 9, lines 34-36). Therefore, the process disclosed by Monk et al. reduces evaporation of the minute droplet.

Regarding Claim 33, Monk et al. teaches the process for reducing evaporation of a minute droplet of an aqueous solution comprising the steps of: providing a planar substrate (cover slip); providing an oily liquid layer (liquid paraffin); and providing an aqueous solution immiscible with said oily layer (cultured pronuclear eggs within the M16 and BSA solution, page 225, (i) and page 264, (i)); shooting a minute droplet of said aqueous solution into said oily liquid layer to contact said planar substrate, wherein said oily liquid layer surrounds all surfaces of said minute droplet of aqueous solution that are not in contact with said substrate whereby evaporation is reduced i.e. (ii) drops of Sendai virus solution and PNC medium are placed on the cover slip, (iii) the chamber is filled with liquid paraffin, and (iv) the eggs are introduced into the liquid paraffin (page 244, Nuclear Transfer), and further comprising providing a covering over said liquid layer i.e. the bottom of the chamber comprises the covering over the liquid layer (page 245, Fig 4b) but Monk et al. does not teach said covering in contact with said minute aqueous droplet. However, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify cover taught by Monk et al. with a cover in contact with the minute droplet because the skilled practitioner in the art would have been motivated to place the cover in contact with the microdroplet for the expected benefit of reducing the optical distortion resulting from light passing from the

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aqueous droplet through the oily liquid to thereby reduce optical distortion during micro-manipulations and to more accurately manipulate and detect the manipulation. The term "shooting", given it's broadest reasonable interpretation encompasses the "introduction" of the egg into the oily layer to contact the substrate of Monk et al. because the introduction would require force to propel the egg through the oil to contact the substrate and "shooting" is reasonably interpreted as a propelling force. Monk et al. do not specifically teach that the process reduces evaporation of the minute droplet. However, Drohan et al. teach the process of Monk et al. reduces evaporation of the minute droplet (Column 9, lines 34-36). Therefore, the process disclosed by Monk et al. reduces evaporation of the minute droplet.

Regarding Claim 37, Monk et al. do not teach the process wherein the contact surface between said planar substrate and said minute droplet of said aqueous solution comprises an enzyme adsorption preventing agent. However, one skilled in the art would have known that reactions involving nucleic acids utilize enzyme adsorption preventing agents e.g. SDS. Specifically, Sambrook et al. teach that Denhardt's reagent which contains SDS is used in nucleic acid assays to block non-specific binding reactions (page 9.48). Therefore, It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the teaching of Sambrook et al. to the reaction performed in a minute droplet based on reaction being performed for the expected benefit of reducing non-specific binding as taught by Sambrook et al.

Regarding Claim 38, Monk et al. teaches the process wherein following the reaction, the manipulated micro droplets (eggs) are shot into (transferred into) the oily liquid layer wherein the contact between said planar substrate and said minute droplet of said aqueous solution comprises bovine serum albumin (page 244, last line) but they do not teach the initial substrate comprises bovine serum albumin. However, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the planar substrate taught by Monk et al. by adding the bovine serum albumin for the expected benefit of

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eliminating the step of transferring the droplet from one substrate to a second substrate for the added benefit of reduced risk of injuring or disrupting the droplet (egg).

Regarding Claim 39, Monk et al. teaches the process wherein the oily liquid is paraffin oil (page 244 (iii)) but they do not teach the thickness of the oily liquid. However, oily liquids of 100 μ m thickness were known and routinely practiced in the art at the time the claimed invention was made and it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the oily layer taught by Monk et al. with a oily layer of 100 μ m or less using routinely practiced procedures to obtain the claimed invention because the skilled practitioner in the art would have been motivated to provide very thin oily layer having 100 μ m or less thickness for the obvious benefit of reducing optical distortion during micro-manipulations to thereby more accurately manipulate and detect the manipulation.

Response to Arguments

10. Applicants argue that Monk et al. do not teach or suggest the limitations of the claims as amended i.e. they do not teach "shooting" the eggs into liquid paraffin. This argument is not found persuasive because, as stated above, "shooting", given it's broadest reasonable interpretation encompasses the "introduction" of the egg into the oily layer to contact the substrate of Monk et al. because the introduction would require a propelling force to "introduce" the egg through the oil to contact the substrate and "shooting" is reasonably interpreted as a propelling force.

Applicants further argue that Monk et al. teach a process of conducting nuclear transfer and not a process of conducting a chemical reaction. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., chemical reaction) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claims are drawn to process for reducing evaporation and process for conducting a reaction. Monk et al., according to the teaching of Drohan et al teach a process for reducing evaporation and Monk et al. teach a process of conducting a reaction i.e. nuclear transfer. Therefore, Monk et al. teach the invention as claimed.

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Finally, Applicants argue that because Monk et al. do not teach or suggest the claimed invention, it would not have been obvious to combine the teachings of Monk et al. with that of Brown et al. and Sambrook to arrive at the present invention. This argument is not found persuasive for the reasons stated above i.e. Monk et al. teach the invention as claimed.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

12. No claim is allowed.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BJ Forman whose telephone number is (703) 306-5878. The examiner can normally be reached on 6:45 TO 4:15.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Jones can be reached on (703) 308-1152. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 for regular communications and (703) 308-8724 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

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BJ Forman, Ph.D.
July 20, 2001

S. G. Horner

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